**Hort360 Reef Certification**

**Forms**

  

Hort360 Reef Certification

Forms

2020

Growcom Australia

Queensland Fruit & Vegetable Growers Ltd trading as Growcom Australia

Level 2 231 George Street

Brisbane QLD 4000

PO Box 12101

George Street Brisbane Qld 4003

P: 07 3620 3844

F: 07 3620 3880

W: www.growcom.com.au

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* Action Planning

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| --- | --- | --- | --- |
| Business Name |  | | |
| Completed by: | | Signature: | Date: |

**Hort360 Reef Certification Checklist**

|  |  |  |  |
| --- | --- | --- | --- |
|  | **Management** |  |  |
| Alignment | Evidence | Yes, No or N/A | Comments / further actions required |
|  | Hort360 |  |  |
| H1 | Hort360 Reef Certification report and date sighted (paper or electronic)   * Hort360 Reef Certification report * Date of report – no older than 12 months * Complete the property page/s relating the property to be reef certified   + Property Info   + On-Farm Operations   + Lot & Plans |  |  |
| M1.2 | Identify property areas, infrastructure and local activities on a property map |  |  |
| M1.2 | Property map(s) are available and identify/include all applicable areas as specified  Property map(s) can be aerial photographs, topographical map, cadastral map, self-drawn map, overlays etc. |  |  |
| M2 | Documentation |  |  |
| M2.1, M2.2 | Verify compliance with the Hort360 Reef Certification through relevant documents and records |  |  |
| M2.1, M2.2 | Current editions of the Hort360 Reef Certification are kept  Sighted copies (print or electronic)   * Hort360 Reef Certification Introduction * Hort360 Reef Certification Compliance * Hort360 Reef Certification Forms * Hort360 Reef Certification Interpretive Guideline * Hort360 Reef Certification Rules |  |  |
| M2.1, M2.2 | All records and documents required to verify compliance to the Hort360 Reef Certification are legible and must include:   * title * date of issue or version number * business name * name of person completing the record and date of completion |  |  |
| M2.1, M2.2 | As documents and records change, out-of-date versions are replaced  All documents and records are current (a CAR to be raised if there is evidence of out-of-date documents in the system / being used). |  |  |
| M2.1, M2.2 | All records are kept for a minimum of three years in-line with tri annual auditing |  |  |
| M4 | Internal audit |  |  |
| M4.1.1 | Conduct internal audits via completion of Hort360 Reef BMP module to verify ongoing compliance |  |  |
| M4.2 | Complete corrective actions for non-compliance |  |  |
| M4.2.1 | A Corrective Action Record (CAR) must be completed when the requirements of the Hort360 Reef Certification, Freshcare Rules or legislation are not being met, as identified by:   * Routine activities * Tri-annual external audits * A valid complaint received from a neighbour, customer or regulatory authority * Environmental harm has occurred/may occur as a result of property activity, neighbouring activity or a natural event |  |  |
| M4.2.2 | Completed Form: Corrective Action Record, or equivalent  must include:   * Description of the problem * Cause of the problem * Whether or not the problem has occurred before * Short term fix (action taken to fix the problem) * Long term fix (action taken to prevent the problem recurring) * Confirmation that the short term and long term actions are completed and effective * Name and signature of person completing the review * Date of the review |  |  |
| M4.2.3 | Reoccurrences of non-compliance are reviewed by the owner or appropriate senior manager |  |  |
| Section completed by: | | Date of completion: | |
| **Nutrient Management** | | | |
| Alignment | Evidence | Yes, No or N/A | Comments/further actions required |
| E5.1.1 | Testing / Target setting / Budgeting   * results of soil/plant tissue/sap/fruitlet testing per soil type / management zone * testing conducted by a NATA/ASPAC accredited lab * lab test results and comments / recommendations * suitably qualified / experienced person recommendations based on test results |  |  |
| E5.4.1  F5.1.9 | Method and records of all fertiliser and soil additive applications are kept and must include:   * application date * location and crop * product used * rate of application * wind speed and direction * method of application/incorporation * name and signature of the person applying the fertilisers and soil additives |  |  |
| E5.4.2 | A record of hydroponic nutrient solution monitoring is kept and must include:   * monitoring date * location and crop * pH and electrical conductivity (EC) of the feed solution * pH and electrical conductivity (EC) of the drainage solution * quantity of drainage solution * name and signature of the person conducting the monitoring activity |  |  |
| E5.3.2 | Equipment used to apply fertilisers and soil additives is calibrated at least annually or as per manufacturer’s instructions. A record of calibration is kept and must include:   * description of method * calibration results * date of calibration * name of the person calibrating the equipment |  |  |
| Section completed by: | | Date of completion: | |
| **Sediment Management** | | | |
| Alignment | Evidence | Yes, No or N/A | Comments/further actions required |
| E2.1.1, E2.2.1 | For identified areas, applicable records of these practices are kept:   * Contour map * Evidence of maintained contour banks * Photos / management zone walk of in-field soil erosion control measures – soil cover, drainage system, contour banks/rows, diversion banks, levelling * Photos / management zone walk of bare inter-row with grassed headlands / grassed drains at ends of blocks / ground cover / grassed drains, headlands / vegetative buffers / sediment retention / roads * Photos / management zone walk of plant bed (residue retention) * Statement of tillage practice * Structure designs and management |  |  |
| E6.3.3 | Water run-off or water discharge from property activities is managed or treated to minimise environmental harm on or off site   * Photo of irrigation application system (sprinkler, etc.) * Photos / management zone walk of riparian areas maintained |  |  |
| Section completed by: | | Date of completion: | |
| **Pesticide Management** | | | |
| Alignment | Evidence | Yes, No or N/A | Comments/further actions required |
| Preventive pest and disease control program  E4.1.3 | Completed Form: Preventive pest and disease control program, or equivalent.   * Business name * Date program developed * Name of worker/person/organisation that documented program * Crop/area to be treated * Target pest/disease/weed * Method of control to be used   + biological,   + chemical,   + cultural,   + mechanical and or   + technological * Details of control method * Frequency of use/stage of crop development   must include any limitations on the frequency of chemical use per crop/season |  |  |
| Pest and Disease monitoring record  Preventive pest and disease control program  E4.1.3 | Completed Form: Pest and disease monitoring record, or equivalent.  The decision to use agricultural chemicals is based on one or more of the following:   * Crop and/or weather monitoring for pest and disease pressure. Records must include:   + date   + area/crop and/or weather parameters monitored   + monitoring result and action recommended   + name of the person who carried out the monitoring activity * External agency pest and disease alerts. Records must include:   + evidence of subscription alerts   + date of alert   + pest or disease the alert is issued for   + source/agency that issued the alert * Documented preventive pest and disease control programs. Records must include:   + date the program was documented   + crop or area to be treated   + target pest / disease / weed   + chemical to be used   + frequency of use (including any limitations on the frequency of chemical use per crop/season) or the stage of crop development   + name of the worker/person/organisation that documented the control program * Industry preventive control programs or phytosanitary specifications. Records must include:   + An up-to-date copy of the industry program or phytosanitary specification. |  |  |
| Weather record E4.6.1, E4.6.2, E4.9.1  &/or  F4.5, F4.8 | Avoid potential for spray drift   * Potential and actual spray drift incidents are identified   Records of all pre-harvest chemical applications are kept and must include:   * + application date   + start and finish times   + location and crop   + chemical used (including batch number if available)   + rate of application and quantity applied   + equipment and/or method used to apply the chemical   + wind speed and direction   + withholding period (WHP) or earliest harvest date (EHD)   + method of disposal of leftover chemical solutions   + name and signature of the person who applied the chemical |  |  |
| Maintain and calibrate chemical application equipment  E4.7  & / or  F4.6 | Completed Form: Calibration Record (Pesticides) or equivalent   * Maintenance detailed on service/maintenance record. * Records of servicing/parts available. * Manufacturer’s instructions (if calibrating to a frequency documented by manufacturer). * Demonstration/explanation of calibration methods. * Calibration certificates |  |  |
| Section completed by: | | Date of completion: | |
| **Water Management** | | | |
| Alignment | Evidence | Yes, No or N/A | Comments/further actions required |
| Water management program  E6.1.2 | Irrigation requirements are determined using soil/growing medium, crop or weather monitoring methods, or a combination thereof   * Monitoring records such as   + Soil moisture monitoring data, weather condition data, weather station data, satellite / drone imagery * Photo / written evidence / management zone walk of monitoring equipment used to determine requirements * Crop water requirement calculation using crop, soil & weather information |  |  |
| Manage water use on property  E6.1.3 | Completed Form: Maintenance and Service – Irrigation application rate record, or equivalent |  |  |
| Section completed by: | | Date of completion: | |

The following templates set out the minimum required information per section of the compliance criteria

Corrective Action Record (CAR)

|  |  |  |  |
| --- | --- | --- | --- |
| Business name: | | | |
| Date CAR raised: | | Person raising CAR: | |
| What is the problem? | | | |
| What caused the problem? | | | |
| Has the problem occurred before? | | | |
| If yes, review required by owner or appropriate senior manager | | | |
| Short term fix *(what can be done now to fix the problem)* | | | |
| Person responsible for action: | Date action completed: | | Signature upon completion: |
| Long term fix *(what can be done to prevent the problem from happening again)* | | | |
| Person responsible for action: | Date action completed: | | Signature upon completion: |
| Have the actions taken been effective? *(If no, complete another CAR to identify alternative actions to be implemented)* | | | |
| Reviewed by: | Signature: | | Date of review: |

**Fertilisers and soil additives application record**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Date** | **Location and crop** | **Product used and batch code (if applicable)** | **Rate of application** | **Wind speed and direction** | **Method of application / incorporation** | **Name and signature of operator** |
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**Hydroponic nutrient solution monitoring record**

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| --- | --- | --- | --- | --- | --- |
| **Business name:** | | | | | |
| **Date** | **Location and crop** | **pH and electrical conductivity (EC) of the feed solution** | **pH and electrical conductivity (EC) of the drainage solution** | **Quantity of drainage solution** | **Name and signature of person conducting monitoring** |
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**Calibration record (Fertiliser / Fertigation)**

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| --- | --- | --- | --- | --- | --- | --- |
| **Business name:** | | | | | | |
| **Date of calibration** | **Block / Management zone** | **Equipment calibrated** | **Method of calibration** | **Reading / results** | **Action taken / comments** | **Conducted by** |
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**Calibration Record (Pesticide)**

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| --- | --- | --- | --- | --- | --- |
| **Business name:** | | | | | |
| **Date of calibration** | **Equipment calibrated** | **Method of calibration** | **Reading / results** | **Action taken / comments** | **Conducted by** |
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**Pest and disease monitoring record**

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| --- | --- | --- | --- |
| **Business name:** | | | |
| **Date** | **Site/crop/weather/parameter** | **Monitoring result and action recommended**  (actions may include: do nothing; biological control; chemical control; cultural control; mechanical control; technological control) | **Name of person that carried out monitoring activity** |
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**Preventive pest and disease control program**

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| --- | --- | --- | --- | --- |
| **Business name:** | | | | |
| **Date program developed** | | **Name of worker/person/organisation that documented program** | | |
| **Crop/area to be treated** | **Target pest/disease/weed** | **Method of control to be used** (biological; chemical; cultural; mechanical; technological) | **Details of control method** | **Frequency of use/stage of crop development** (must include any limitations on the frequency of chemical use per crop/season) |
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**Pesticide Application Record**

**Location**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Application Date** | **Start Time** | **Finish Time** | **Location** | **Crop** |
|  |  |  |  |  |

**Pesticide**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Chemical Used** | **Batch Number (if applicable)** | **Rate of Application** | **Quantity Applied** | **Equipment Used / Method** |
|  |  |  |  |  |
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**Weather**

|  |  |
| --- | --- |
| **Wind Speed** | **Wind Direction** |
|  |  |

|  |  |
| --- | --- |
| **Withholding Period (WHP) or Earliest Harvest Date (EHD)** |  |

|  |  |
| --- | --- |
| **Method of Disposal (leftover chemicals)** |  |

|  |  |
| --- | --- |
| **Name and signature of person who applied the pesticide** |  |
|  |

**Maintenance and Service – Irrigation system application rate record**

Refer to the Reef Certification Interpretative Guidelines - **Do you know the rate of water applied by your irrigation system (ie mm/hr or L/hr)?** – for calculation assistance

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **Date** | **Irrigation System** | **Pressure compensated Y / N** | **Flow Rate litres/hr** | **Wetted area (m2)** | **Emitter Pressure** | **mm/hr applied** | **Worker Responsible** |
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**Water Management program**

|  |  |
| --- | --- |
| **Business name:** | |
| **Date developed:** | **Completed by:** |

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Crop** | **Variety** | **Crop Area (Ha)** | **Water Required**  **(ML/Ha)** | **Water Required**  **(total for crop)** | **Irrigation Method** |
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**Action Planning**

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| --- | --- |
| **Business name:** | |
| **Date conducted** | **Completed by:** |

|  |  |  |  |
| --- | --- | --- | --- |
| **Management Practice** | **Areas to consider** | **Risk / value identified via Hort360 Reef BMP module report** | **Number#** |
| **Nutrient** | Testing, budgets, calibration, application methods, application rate, records |  |  |
| **Sediment** | Buffers, inter-row, beds, traps, roads |  |  |
| **Pesticide** | Determine needs, drift, records, calibration |  |  |
| **Water** | Application, monitoring |  |  |

**Action Planning (cont.)**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Number#** | **Location on property / site** | **Actions planned** | | |
|  |  |
| **Who is responsible** | **Timeframe to complete** | **Evaluate** | |
| Name: | Date: |
| Position: | **Sign-off** | Name: | Date: |

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Number#** | **Location on property / site** | **Actions planned** | | |
|  |  |
| **Who is responsible** | **Timeframe to complete** | **Evaluate** | |
| Name: | Date: |
| Position: | **Sign-off** | Name: | Date: |

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| --- | --- | --- | --- | --- |
| **Number#** | **Location on property / site** | **Actions planned** | | |
|  |  |
| **Who is responsible** | **Timeframe to complete** | **Evaluate** | |
| Name: | Date: |
| Position: | **Sign-off** | Name: | Date: |

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| --- | --- | --- | --- | --- |
| **Number#** | **Location on property / site** | **Actions planned** | | |
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| **Who is responsible** | **Timeframe to complete** | **Evaluate** | |
| Name: | Date: |
| Position: | **Sign-off** | Name: | Date: |

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| --- | --- | --- | --- | --- |
| **Number#** | **Location on property / site** | **Actions planned** | | |
|  |  |
| **Who is responsible** | **Timeframe to complete** | **Evaluate** | |
| Name: | Date: |
| Position: | **Sign-off** | Name: | Date: |